

A National Program for Training Public Health Personnel

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Massachusetts has shown outstanding evidence of leadership in dealing with the protection of the health of her citizens. In recent months she has responded to the challenge of a Nation-wide and world-wide shortage of trained public health personnel, and is demonstrating effective methods for carrying out field training for all types of public health personnel, including health officers, public health nurses, health educators, sanitary engineers, and sanitarians. The Public Health Service, through its Communicable Disease Center in Atlanta, has participated in the New England Field Training Center where the field training of persons who have completed their academic work is being carried on. Also under way is a training program which offers refresher courses in sanitation to persons throughout New England who are already on the job and need additional instruction in public health methods. I shall outline briefly some of the ways in which the Public Health Service is working with Massachusetts and with many other States in developing improved techniques for field training of public health personnel throughout the Nation.

In developing a national program of field training, the Public Health Service is taking full advantage of its opportunity to draw upon all the available resources in the Nation. These resources include the Kellogg and Commonwealth Foundations, the many schools of public health, the universities which have developed field training to supplement their academic courses, and several States which for years have conducted excellent field training programs.

Communicable Disease Center Training Services

An effort has been made to bring all field training experience and knowledge into focus at one headquarters point. Special opportunities for doing this exist in Training Services, a branch of the Communicable Disease Center at Atlanta, the central headquarters of the field training program of the Public Health Service. Here, over a period of several years, CDC has developed new and improved methods for helping the States develop field training programs. The keynote at this field station is teamwork, a principle which has been followed by a large group of eminent scientists, doctors, engineers, entomolo-

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gists, nurses, and laboratory specialists who carry on a Nation-wide program of applied research in communicable disease control. Because field training is essential in this broad program, CDC is working with the States to assist them in establishing such programs.

During World War II, in Atlanta, sanitary engineers, sanitarians, entomologists, and other public health workers developed effective practical training techniques in malaria and typhus control which were eminently successful. The same principles which were utilized then are now being rapidly expanded to cover the entire field of public health. Perhaps a glance into some of the fundamental concepts upon which the national program of field training for public health personnel is erected will be of interest.

An experimental field training center is continually in operation with headquarters at the Communicable Disease Center. One hundred miles to the south in Columbus, Ga., new field training methods are continually being developed in a city-county health department. The training officers assigned to the Columbus center and to Atlanta headquarters, as well as to all regional training centers, have been selected with great care. Contagious enthusiasm and a missionary zeal as to the relative importance of field training in public health have been basic elements in the specifications for their selection. These training officers must and do have the ability to impart inspiration and enthusiasm to other training officers and trainees studying and doing practical work at these centers.

Public relations is a fundamental concept. The training officer must keep constantly in mind and must practice good public relations. Public speaking and public relations practice are incorporated in all field work given under the auspices of the CDC Training Services Branch.

Periodic working conferences bring the leaders from all regional centers together at headquarters to hold discussions in small groups. Thus, a clearing house on the most effective training methods is operating at Atlanta continuously.

From this central training source, assistance is continually flowing to States which have made beginnings in field training, such as the centers at Gainesville, Fla.; New Orleans, La.; and Austin, Tex. If a special need arises for training in food sanitation in the Florida training center, for example, a request for a training team is dispatched to Atlanta. On the team's arrival at Gainesville, its members place themselves under the direction of the training officer in charge of the State center. Field practice in food sanitation is then made possible through the use of the city-county health facilities.

On another occasion, perhaps, a group of young Latin American medical officers may be completing their master of public health degrees at Tulane University and need a 7- to 14-day period of field

practice in malaria and insect control, with special emphasis on conditions in Latin America. The New Orleans field training center advises Atlanta of its needs, and a two-man training team is dispatched to New Orleans with essential equipment, insecticides, and audio-visual aids. Here, using the State training center as a base, the training officers from Atlanta spend a week or 10 days working with the young medical officers who then return to Latin America to become leaders in organizing and administering public health practices.

Another need might arise in the field of housing sanitation. Key cities and counties in Texas may wish to orient their sanitary engineers and sanitarians in housing evaluation techniques and slum clearance programs. Public Health Service officers in the Federal Security Agency Regional Office at Dallas, working with the State training program at Austin, arrange the time and length of the course to be held at the training center, and request a training team from Atlanta. Members of the team proceed to the State training center and, utilizing local facilities, give the essential orientation and specialized training in housing sanitation that will enable these sanitation leaders in cities and counties in Texas to start housing sanitation programs in their own communities.

For the past year, two-man training teams have been sent on request to Massachusetts, Washington, D. C., Colorado, Missouri, South Carolina, California, and to the Pacific Northwest. The regional training centers, in cooperation with the Regional Offices of the Federal Security Agency, do the essential planning, provide the space, and recruit the personnel. Such decentralized courses of a specialized nature are economical, and fill a real need in many States.

One unique element in the training facilities available from Atlanta is the audio-visual production services. It is a "Hollywood in miniature" without the glamour, but it provides outstanding educational leadership in the preparation of training aids. In this branch are script writers, motion picture and still picture cameramen, editors, sound engineers, and audio-visual production specialists. They produce filmstrips, slides, and motion pictures which can be used at the field training centers. Thus, principles of water supply, waste disposal, rodent and insect control, and milk and food sanitation can be visualized for the trainee. Training officers with teaching experience, who served in the Army and Navy during World War II directing the use of training aids and instructing both officers and enlisted men, are heading this program of putting into practice the rapid-education methods perfected by the armed forces. Now, the effort is being directed toward conserving human life. It is perhaps the first systematic effort in the United States to develop and use training aids which are specially planned and designed for teaching public health principles.

The first course in training methods was scheduled this year at Atlanta. This course is designed for training "trainers"—leaders from regional and from State training centers. Educators from the Georgia Institute of Technology and Emory University and specialists in the use of audio-visual training aids cooperated with the CDC staff in directing these courses. Industrial enterprises have found training courses such as these invaluable, and the U. S. Office of Education had extraordinary success in administering them during the war.

Now, let us briefly glance at the United States as a whole and see how, by utilizing previously mentioned principles and procedures, the field training centers which constitute the nucleus for a national program are distributed across the Nation. We shall start in the East and move first to the South and then to the West.

Amherst, Mass.—Regional field training center serving New England.

Buffalo, Syracuse, and Albany, N. Y.—Regional field training center and assistance to State health department training office.

Pittsburgh and Harrisburg, Pa.—Regional field training center and assistance to State health department training office.

Cincinnati, Ohio.—Nation-wide field training center in environmental sanitation, stream pollution control, and radiological health.

Bloomington, Ill.—Regional field training center.

Charleston and Columbia, S. C.—Field training center and assistance to State health department training office.

Chapel Hill, University of North Carolina, School of Public Health.—Assistance to university field training team of State and regional scope.

Allanta, Ga.—Headquarters of training services.

Columbus, Ga.—Regional field training center.

Topeka, Kans.—Regional field training center.

Norman, Okla.—Field training center and assistance to State health department training office.

Denver, Colo.—Regional field training center.

San Francisco, Calif.—Assistance to State health department training office.

Seattle, Wash.—Regional field training center and assistance to State health department training office.

It is possible to comment upon only two or three examples of these centers and to indicate briefly their scope and development.

New York Field Training Center Productive Three Ways

Approximately 3 years ago, two Public Health Service officers were assigned to the Troy-Rensselaer Health Department under an agreement with the New York State Health Department. They had been engaged for a year or more at Columbus, Ga., in field training courses in environmental sanitation, in which county sanitarians from North Carolina, South Carolina, and Georgia were given 3 months of practical training. In addition to conducting the 12-week regularly scheduled courses for New York State sanitary inspectors, the two

Public Health Service officers developed, upon request, decentralized training activities of different types for the University of Massachusetts at Amherst and for Pittsburgh, Pa. It was found that their help was beneficial, and the time proved ripe for developing field training in both Massachusetts (for the six States in the New England area) and in Pennsylvania, as well as for expanding the excellent but limited field training activities in New York State. Thus, from the original Troy field training demonstration, there have grown three comprehensive training programs: (1) the New England field training center; (2) the development of more complete systems of field training for all public health disciplines in New York State; and (3) full-time field training activities to serve Pittsburgh and the State of Pennsylvania.

New England Field Training Center

Utilizing the resources and facilities at the University of Massachusetts, after an agreement by the State, the Federal Security Agency Regional Office, and the university, two CDC training officers were assigned to Amherst. Instead of sending the University's 4-year graduates in environmental sanitation to Michigan as had been done in the past, facilities were developed and put into use in western Massachusetts. The field training demonstration was successful from the start. Later, Kellogg Foundation assistance, together with funds from the State health department and the university, made it possible to inaugurate a full-fledged Massachusetts field training program, with responsibility resting in the executive office of the State health commissioner. The leadership and enthusiasm of the director of training have moved the program rapidly forward, and it is proposed to have this center serve all New England for the field training of all types of public health workers.

Expansion of New York State Training Program

With the assistance of Public Health Service officers, the office of professional training at Albany has embarked upon a program of giving field training to sanitary engineers and sanitarians on a State-wide basis. The report, dated March 12, 1951, of the Committee on Sanitation Training to the health commissioner, Dr. Herman E. Hilleboe, recommended inauguration of three types of training program: short in-service training courses for all engineers and sanitarians; internship training program for inexperienced engineers and sanitarians; and formal academic training for engineers and sanitarians at universities and colleges. The report also recommended that a public health engineer and sanitarian be employed to operate and supervise the training section and direct all sanitation programs in the State. The necessary funds and personnel, it is reported, have been obtained by New York to make this training program effective.

New York is also expanding field training for health educators and health officers through assignment of training officers.

Inauguration of Field Training in Pennsylvania

The enthusiastic interest of the director of the new School of Public Health in Pittsburgh, of the new State health commissioner, and of the health officer of Pittsburgh have stimulated progress in field training in Pennsylvania. The Public Health Service assigned two training officers with broad experience to the new regional center which the city health department provided and equipped. Twelve-week courses in environmental sanitation for trainees from Pittsburgh, from Pennsylvania Health Department headquarters, and from Ohio are meeting with success.

At the request of the new State health commissioner, the scope of the field training is being broadened by establishing a director of training in the executive office of the commissioner for the purpose of assisting all divisions in training public health personnel. Our training officer has been invited to assist in the work.

This brief recital of the trend toward enlarging field training in the northeastern section of the country indicates how ready the States are to cooperate in more effective training activities. The demonstration at Troy, N. Y., bore fruit far out of proportion to the investment made by CDC.

Specialized Training Services at Cincinnati

Close liaison is maintained between two field stations of the Public Health Service: the Communicable Disease Center and the Environmental Health Center at Cincinnati, Ohio. As Atlanta headquarters provides Nation-wide services in field training through regional centers, the Environmental Health Center provides specialized training along three lines: (a) stream pollution control; (b) laboratory aspects of milk and food; and (c) radiological health.

An increasing amount of research in connection with industrial wastes disposal, industrial hygiene, water supply, sewage wastes disposal, and radiological projects makes Cincinnati the logical training center to give help to States through specialized courses. A competent staff of training officers, consisting of sanitary engineers, chemists, bacteriologists, and biologists, organize and give these courses.

During 1950, a staff in radiological health was assembled at Cincinnati under the direction of the Radiological Health Unit, Division of Engineering Resources, in Washington. Leaders from State health departments are welcomed to these 2- to 3-week courses which acquaint the trainee with the various aspects of radiological health in relation to water supply and wastes disposal.

Research laboratory activities in milk and food bacteriology afford an opportunity to develop short courses to assist State laboratory personnel in food and milk sanitation.

The courses scheduled at the Environmental Health Center are developed and directed entirely by the Cincinnati and Washington offices of the Public Health Service, but close liaison is maintained with the CDC Training Services so that the training courses can be incorporated into the published training schedules of the Public Health Service and essential teaching aids can be developed in the categories in which the Cincinnati Training Center specializes.

Contributions from Educational Agencies

Schools of Public Health, universities, and foundations have offered, perhaps, the most stimulation in the improvement of field training methods. In Massachusetts, New York, North Carolina, Pennsylvania, Colorado, Michigan, Illinois, and Oklahoma, contributions have been too numerous to mention. Deans of schools of public health and the Kellogg Foundation have made it possible to hold two outstanding work conferences; the first at Chapel Hill, N. C., in June 1950; the second at Battle Creek, Mich., in April 1951.

The Training Services has noted with interest five recommendations of a committee report developed at the Chapel Hill meeting, relating to the kinds of help which the Public Health Service might give to assist the Nation-wide effort in field training. The recommendations were:

1. To make financial grants available to States for the development and continued support of field training programs.
2. To train field training specialists and to lend them to States to assist in the development and conduct of training programs. Some of these specialists might comprise teams for highly specialized training activities.
3. To develop and make available to States various training materials, such as manuals, visual aids, models, and exhibits.
4. To assist in the development of regional field training programs for areas where individual State programs are not feasible.
5. To serve as research centers for the development of field training techniques.

Participating in this successful Nation-wide working conference were 29 field training officers, and representatives from 13 States, the Public Health Service, the W. K. Kellogg Foundation, the University of North Carolina School of Public Health, and the University of Massachusetts. At a second Nation-wide conference in Battle Creek, Mich., made possible through the Kellogg Foundation, directors of departments handling courses in undergraduate environmental sanitation in universities and schools throughout the country assembled

for a week's work session. The result was substantial agreement upon the curricula for the 4-year courses in environmental sanitation. One point was unanimously agreed upon, namely, that 3 months of field training is a "must" in the educational program of a competent sanitarian.

Training Program Useful in World-Wide Public Health

It is fortunate that the Public Health Service has been developing these field training facilities. Not only are they becoming increasingly useful to the States but they are also proving of value in our international relationships. Every year more than a hundred public health administrators and students from other countries visit and participate in field training at CDC headquarters at the completion of their university study.

The Public Health Service is assigning scores of its medical, nursing, engineering, and scientist officers to the ECA Technical Missions program in southeast Asia. The facilities in Georgia and adjacent States for field training in malaria control, insect and rodent control, basic sanitation, and for learning public health administration techniques, are being put to effective use. In May, 50 Public Health Service officers completed a 4-week period of field training in Atlanta before leaving for the different countries in southeast Asia to teach, to guide, and to demonstrate more effective methods of controlling disease.

CDC training officers are working closely with the Division of International Health in Washington to the end that regional field training facilities in other countries may be patterned after the program described herein—a program which can be summed up as "learning by doing."